Wythe County Water & Wastewater

340 South Sixth Street - Administration Building
Wytheville, Virginia 24382-2598
Telephone (276) 223-4501
FAX (276) 223-4515

R. Cellell Dalton
County Administrator

Don T. Crisp
Director

Ann Wynn
Secretary

June 7, 2016

Mr. Fred Wyatt
Dept. of Environmental Quality
355-A Deadmore St.
Abingdon VA, 24210

Re: Permit Reissuance, VPDES Permit No. VA0074161

Dear Mr. Wyatt,

Please find attached the permit application for the subject facility. Should you have any questions or need additional information, please contact me.

Sincerely,

Donald T. Crisp, Jr.
Director, Water and Wastewater Dept.

NPDES Permit Application
Ft. Chiswell/Max Meadows WWTP
VPDES # VA0074161
May 23, 2016

Prepared by
Wythe Co. Water & Wastewater Dept.
Donald T. Crisp, Director

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2016 APP

FACILITY NAME AND PERMIT NUMBER:
Fort Chiswell WWTP VA0074161

Form Approved 1/14/99
OMB Number 2040-0086

BASIC APPLICATION INFORMATION

PART A. BASIC APPLICATION INFORMATION FOR ALL APPLICANTS:

All treatment works must complete questions A.1 through A.8 of this Basic Application Information Packet.

A.1. Facility Information.

Facility Name	Fort Chiswell Wastewater Treatment Plant
Mailing Address	340 South Sixth Street Wytheville, VA 24382
Contact Person	Don Crisp, Jr.
Title	Director
Telephone Number	(276) 637-4544
Facility Address (not P.O. Box)	613 Locust Hill Road Max Meadows, VA 24360

A.2. Applicant Information. If the applicant is different from the above, provide the following:

Applicant Name	Wythe County Board of Supervisors
Mailing Address	340 South Sixth Street Wytheville, VA 24382
Contact Person	R. Cellell Dalton
Title	County Administrator
Telephone Number	(276) 223-6020

Is the applicant the owner or operator (or both) of the treatment works?

☒ owner ☒ operator

Indicate whether correspondence regarding this permit should be directed to the facility or the applicant.

☐ facility ☒ applicant

A.3. Existing Environmental Permits. Provide the permit number of any existing environmental permits that have been issued to the treatment works (include state-issued permits).

NPDES		PSD	
UIC		Other	VPDES #VA0074161
RCRA		Other	

A.4. Collection System Information. Provide information on municipalities and areas served by the facility. Provide the name and population of each entity and, if known, provide information on the type of collection system (combined vs. separate) and its ownership (municipal, private, etc.).

Name	Population Served	Type of Collection System	Ownership
Ft. Chiswell - MM	1150		Wythe County
Progress Park	400		Wythe County/IDA

Total population served 1550

A.5. Indian Country.

a. **Is the treatment works located in Indian Country?**

☐ Yes ☒ No

b. Does the treatment works discharge to a receiving water that is either in Indian Country or that is upstream from (and eventually flows through) Indian Country?

☐ Yes ☒ No

A.6. Flow. Indicate the design flow rate of the treatment plant (i.e., the wastewater flow rate that the plant was built to handle). Also provide the average daily flow rate and maximum daily flow rate for each of the last three years. Each year's data must be based on a 12-month time period with the 12th month of "this year" occurring no more than three months prior to this application submittal.

a. Design flow rate 1.25 mgd

		Two Years Ago	Last Year	This Year
b.	Annual average daily flow rate	0.363 MGD	0.410 MGD	0.460 MGD
c.	Maximum daily flow rate	0.794 MGD	1.167 MGD	0.898 MGD

A.7. Collection System. Indicate the type(s) of collection system(s) used by the treatment plant. Check all that apply. Also estimate the percent contribution (by miles) of each.

☒ Separate sanitary sewer 100 %

☐ Combined storm and sanitary sewer ____ %

A.8. Discharges and Other Disposal Methods.

a. Does the treatment works discharge effluent to waters of the U.S.? ☒ Yes ☐ No

If yes, list how many of each of the following types of discharge points the treatment works uses:

i. Discharges of treated effluent 1

ii. Discharges of untreated or partially treated effluent 0

iii. Combined sewer overflow points 0

iv. Constructed emergency overflows (prior to the headworks) 0

v. Other ____

b. Does the treatment works discharge effluent to basins, ponds, or other surface impoundments that do not have outlets for discharge to waters of the U.S.? ☐ Yes ☒ No

If yes, provide the following for each surface impoundment:

Location: ____

Annual average daily volume discharge to surface impoundment(s) ____ mgd

Is discharge ☐ continuous or ☐ intermittent?

c. Does the treatment works land-apply treated wastewater? ☐ Yes ☒ No

If yes, provide the following for each land application site:

Location: ____

Number of acres: ____

Annual average daily volume applied to site: ____ mgd

Is land application ☐ continuous or ☐ intermittent?

d. Does the treatment works discharge or transport treated or untreated wastewater to another treatment works? ☐ Yes ☒ No

If yes, describe the mean(s) by which the wastewater from the treatment works is discharged or transported to the other treatment works (e.g., tank truck, pipe).

If transport is by a party other than the applicant, provide:

Transporter Name

Mailing Address

Contact Person

Title

Telephone Number ( )

For each treatment works that receives this discharge, provide the following:

Name

Mailing Address

Contact Person

Title

Telephone Number ( )

If known, provide the NPDES permit number of the treatment works that receives this discharge

Provide the average daily flow rate from the treatment works into the receiving facility. mgd

e. Does the treatment works discharge or dispose of its wastewater in a manner not included in A.8. through A.8.d above (e.g., underground percolation, well injection): ☐ Yes ☒ No

If yes, provide the following for each disposal method:

Description of method (including location and size of site(s) if applicable):

Annual daily volume disposed by this method:

Is disposal through this method ☐ continuous or ☐ intermittent?

WASTEWATER DISCHARGES:

If you answered "yes" to question A.8.a, complete questions A.9 through A.12 **once for each outfall** (including bypass points) through which effluent is discharged. Do not include information on combined sewer overflows in this section. **If you answered "no" to question A.8.a,** go to Part B, "Additional Application Information for Applicants with a Design Flow Greater than or Equal to 0.1 mgd."

A.9. Description of Outfall.

a. Outfall number: 001

b. Location: 613 Locust Hill Road, Max Meadows, VA (City or town, if applicable) 24360 (Zip Code)

Wythe (County) VA (State)

37 57' 50" (Lattitutde) 80 55' 71" (Longitude)

c. Distance from shore (if applicable): N/A ft.

d. Depth below surface (if applicable): N/A ft.

e. Average daily flow rate: 0.460 mgd

f. Does this outfall have either an intermittent or a periodic discharge? ☒ Yes ☐ No (go to A.9.g.)

If yes, provide the following information:

Number f times per year discharge occurs: 2920 EST

Average duration of each discharge: Varies (SBR)

Average flow per discharge: Varies (SBR) mgd

Months in which discharge occurs: All

g. Is outfall equipped with a diffuser? ☒ Yes ☐ No

A.10. Description of Receiving Waters.

a. Name of receiving water: Reed Creek

b. Name of watershed (if known): New River

United States Soil Conservation Service 14-digit watershed code (if known): Unknown

c. Name of State Management/River Basin (if known): New River

United States Geological Survey 8-digit hydrologic cataloging unit code (if known): Unknown

d. Critical low flow of receiving stream (if applicable)
acute N/R cfs chronic N/R cfs

e. Total hardness of receiving stream at critical low flow (if applicable): N/R mg/l of $CaCO_3$

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A.11. Description of Treatment

a. What levels of treatment are provided? Check all that apply.

☒ Primary ☒ Secondary

☐ Advanced ☐ Other. Describe: _____

b. Indicate the following removal rates (as applicable):

Design BOD5 removal or Design CBOD5 removal	90	%
Design SS removal	90	%
Design P removal	N/R	%
Design N removal	90	%
Other		%

c. What type of disinfection is used for the effluent from this outfall? If disinfection varies by season, please describe:

Gas Chlorination

If disinfection is by chlorination is dechlorination used for this outfall? ☒ Yes ☐ No

d. Does the treatment plant have post aeration? ☐ Yes ☒ No

A.12 Effluent Testing Information. All Applicants that discharge to waters of the US must provide effluent testing data for the following parameters. Provide the indicated effluent testing required by the permitting authority for each outfall through which effluent is discharged. Do not include information on combined sewer overflows in this section. All information reported must be based on data collected through analysis conducted using 40 CFR Part 136 methods. In addition, this data must comply with QA/QC requirements of 40 CFR Part 136 and other appropriate QA/QC requirements for standard methods for analytes not addressed by 40 CFR Part 136. At a minimum, effluent testing data must be based on at least three samples and must be no more than four and one-half years apart.

Outfall number: 001

PARAMETER	MAXIMUM DAILY VALUE		AVERAGE DAILY VALUE		
	Value	Units	Value	Units	Number of Samples
pH (Minimum)	7.3	s.u.			
pH (Maximum)	7.8	s.u.			
Flow Rate	1.167	MGD	0.410	MGD	365
Temperature (Winter)	14.3	Deg. C	11.8	Deg. C	29
Temperature (Summer)	23.7	Deg. C	22.5	Deg. C	31

* For pH please report a minimum and a maximum daily value

POLLUTANT		MAXIMUM DAILY DISCHARGE		AVERAGE DAILY DISCHARGE			ANALYTICAL METHOD	ML/MDL
		Conc.	Units	Conc.	Units	Number of Samples		
CONVENTIONAL AND NON CONVENTIONAL COMPOUNDS								
BIOCHEMICAL OXYGEN DEMAND (Report one)	BOD5	9.5	mg/L	2.9	mg/L	156	SM18 5210B	2.0 mg/L
	CBOD5							
FECAL COLIFORM								
TOTAL SUSPENDED SOLIDS (TSS)		6.8	mg/L	2.6	mg/L	156	SM18 2540D	1.0 mg/L

END OF PART A.
REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM 2A YOU MUST COMPLETE

BASIC APPLICATION INFORMATION

PART B. ADDITIONAL APPLICATION INFORMATION FOR APPLICANTS WITH A DESIGN FLOW GREATER THAN OR EQUAL TO 0.1 MGD (100,000 gallons per day).

All applicants with a design flow rate ≥ 0.1 mgd must answer questions B.1 through B.6. All others go to Part C (Certification).

B.1. Inflow and Infiltration. **Estimate the average number of gallons per day that flow into the treatment works from inflow and/or infiltration.**

1000 gpd

Briefly explain any steps underway or planned to minimize inflow and infiltration.

Preventative Maintenance

B.2. Topographic Map. Attach to this application a topographic map of the area extending at least one mile beyond facility property boundaries. This map must show the outline of the facility and the following information. (You may submit more than one map if one map does not show the entire area.)

a. The area surrounding the treatment plant, including all unit processes.

b. The major pipes or other structures through which wastewater enters the treatment works and the pipes or other structures through which treated wastewater is discharged from the treatment plant. Include outfalls from bypass piping, if applicable.

c. Each well where wastewater from the treatment plant is injected underground.

d. Wells, springs, other surface water bodies, and drinking water wells that are: 1) within ¼ mile of the property boundaries of the treatment works, and 2) listed in public record or otherwise known to the applicant.

e. Any areas where the sewage sludge produced by the treatment works is stored, treated, or disposed.

f. If the treatment works receives waste that is classified as hazardous under the Resource Conservation and Recovery Act (RCRA) by truck, rail, or special pipe, show on the map where the hazardous waste enters the treatment works and where it is treated, stored, and/or disposed.

B.3. Process Flow Diagram or Schematic. Provide a diagram showing the processes of the treatment plant, including all bypass piping and all backup power sources or redundancy in the system. Also provide a water balance showing all treatment units, including disinfection (e.g., chlorination and dechlorination). The water balance must show daily average flow rates at influent and discharge points and approximate daily flow rates between treatment units. Include a brief narrative description of the diagram.

B.4. Operation/Maintenance Performed by Contractor(s).

Are any operational or maintenance aspects (related to wastewater treatment and effluent quality) of the treatment works the responsibility of a contractor? ☒ Yes ☒ No

If yes, list the name, address, telephone number, and status of each contractor and describe the contractor's responsibilities (attach additional pages if necessary).

Name: _____

Mailing Address: _____

_____

Telephone Number: (___) _____

Responsibilities of Contractor: _____

B.5. Scheduled improvements and Schedules of Implementation. Provide information on any uncompleted implementation schedule or uncompleted plans for improvements that will affect the wastewater treatment, effluent quality, or design capacity of the treatment works. If the treatment works has several different implementation schedules or is planning several improvements, submit separate responses to question B.5 for each. (If none, go to question B.6.)

a. List the outfall number (assigned in question A.9) for each outfall that is covered by this implementation schedule.

_____

b. Indicate whether the planned improvements or implementation schedule are required by local, State, or Federal agencies.

☐ Yes ☐ No

c. If the answer to B.5.b is "Yes," briefly describe, including new maximum daily inflow rate (if applicable).

d. Provide dates imposed by any compliance schedule or any actual dates of completion for the implementation steps listed below, as applicable. For improvements planned independently of local, State, or Federal agencies, indicate planned or actual completion dates, as applicable. Indicate dates as accurately as possible.

Implementation Stage	Schedule MM/DD/YYYY	Actual Completion MM/DD/YYYY
- Begin Construction	/ /	/ /
- End Construction	/ /	/ /
- Begin Discharge	/ /	/ /
- Attain Operational Level	/ /	/ /

e. Have appropriate permits/clearances concerning other Federal/State requirements been obtained? ☐ Yes ☐ No

Describe briefly:

B.6. EFFLUENT TESTING DATA (GREATER THAN 0.1 MGD ONLY).

Applicants that discharge to waters of the US must provide effluent testing data for the following parameters. Provide effluent testing for the following listed parameters and those required by the permitting authority for each outfall through which effluent is discharged. Do not include information on combined sewer overflows in this section. All information reported must be based on data collected through analysis conducted using 40 CFR Part 136 methods. In addition, this data must comply with QA/QC requirements of 40 CFR Part 136 and other appropriate QA/QC requirements for standard methods for analytes not addressed by 40 CFR Part 136. At a minimum effluent testing data must be based on at least three pollutant scans, preferably represent several seasons, and must be no more than four and on-half years old.

Outfall Number: 001

POLLUTANT	MAXIMUM DAILY DISCHARGE		AVERAGE DAILY DISCHARGE			ANALYTICAL METHOD	ML/MDL
	Conc.	Units	Conc.	Units	Number of Samples		
CONVENTIONAL AND NON CONVENTIONAL COMPOUNDS							
AMMONIA (as N)	1.22	mg/l	0.09	mg/l	36	sm184500	0.1
CHLORINE (TOTAL RESIDUAL, TRC)	0	mg/l	0	mg/l	90	sm4500-F1	0.01
DISSOLVED OXYGEN	8.0	mg/l	7.4	mg/l	90	sm4500G	0.1
TOTAL KJELDAHL NITROGEN (TKN)	1.5	mg/l	<1.00	mg/l	3	sm4500	0.1
NITRATE PLUS NITRITE NITROGEN	10.1	mg/l	9.83	mg/l	3	sm4500-NO3 F-2011	0.01
OIL and GREASE	1.7	mg/l	1.6	mg/l	3	EPA1664A	10
PHOSPHORUS (Total)	11.8	mg/l	7.79	mg/l	3	sm4500-p E-2011	0.01
TOTAL DISSOLVED SOLIDS (TDS)	1280	mg/l	1097	mg/l	3	sm2540c-2011	1.0
OTHER							

END OF PART B.
REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM 2A YOU MUST COMPLETE

FACILITY NAME AND PERMIT NUMBER:

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BASIC APPLICATION INFORMATION

PART C. CERTIFICATION

All applicants must complete the Certification Section. Refer to instructions to determine who is an officer for the purposes of this certification. All applicants must complete all applicable sections of Form 2A, as explained in the Application Overview. Indicate below which parts of Form 2A you have completed and are submitting. By signing this certification statement, applicants confirm that they have reviewed Form 2A and have completed all sections that apply to the facility for which this application is submitted.

Indicate which parts of Form 2A you have completed and are submitting:

☒ Basic Application Information packet

Supplemental Application Information packet:

☒ Part D (Expanded Effluent Testing Data)

☒ Part E (Toxicity Testing: Biomonitoring Data)

☒ Part F (Industrial User Discharges and RCRA/CERCLA Wastes)

☐ Part G (Combined Sewer Systems)

ALL APPLICANTS MUST COMPLETE THE FOLLOWING CERTIFICATION.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name and official title: R. Cellell Dalton, County Administrator

Signature: R Cellell Dalton

Telephone number: (276) 223-4500

Date signed: 6/7/16

Upon request of the permitting authority, you must submit any other information necessary to assure wastewater treatment practices at the treatment works or identify appropriate permitting requirements.

SEND COMPLETED FORMS TO:

FACILITY NAME AND PERMIT NUMBER:

Fort Chiswell WWTP VA0074161

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SUPPLEMENTAL APPLICATION INFORMATION

PART D. EXPANDED EFFLUENT TESTING DATA

Refer to the directions on the cover page to determine whether this section applies to the treatment works.

Effluent Testing: 1.0 mgd and Pretreatment Works. If the treatment works has a design flow greater than or equal to 1.0 mgd or it has (or is required to have) a pretreatment program, or is otherwise required by the permitting authority to provide the data, then provide effluent testing data for the following pollutants. Provide the indicated effluent testing information and any other information required by the permitting authority for each outfall through which effluent is discharged. Do not include information on combined sewer overflows in this section. All information reported must be based on data collected through analyses conducted using 40 CFR Part 136 methods. In addition, these data must comply with QA/QC requirements of 40 CFR Part 136 and other appropriate QA/QC requirements for standard methods for analytes not addressed by 40 CFR Part 136. Indicate in the blank rows provided below any data you may have on pollutants not specifically listed in this form. At a minimum, effluent testing data must be based on at least three pollutant scans and must be no more than four and one-half years old.

Outfall number: 001 (Complete once for each outfall discharging effluent to waters of the United States.)

POLLUTANT	MAXIMUM DAILY DISCHARGE				AVERAGE DAILY DISCHARGE					ANALYTICAL METHOD	ML/MDL
	Conc.	Units	Mass	Units	Conc.	Units	Mass	Units	Number of Samples		
METALS (TOTAL RECOVERABLE), CYANIDE, PHENOLS, AND HARDNESS.											
ANTIMONY	<0.010	mg/l								EPA 200.7	
ARSENIC	<0.010	mg/l								EPA 200.7	
BERYLLIUM	<0.010	mg/l								EPA 200.7	
CADMIUM	<0.002	mg/l								EPA 200.7	
CHROMIUM	<0.005	mg/l								EPA 200.7	
COPPER	<0.005	mg/l								EPA 200.7	
LEAD	<0.006	mg/l								EPA 200.7	
MERCURY	<0.0002	mg/l								EPA 200.7	
NICKEL	<0.006	mg/l								EPA 200.7	
SELENIUM	0.011	mg/l			<0.01	mg/l				EPA 200.7	
SILVER	<0.005	mg/l								EPA 200.7	
THALLIUM	<0.020	mg/l								EPA 200.7	
ZINC	0.064	mg/l			0.058	mg/l				EPA 200.7	
CYANIDE	<0.005	mg/l								sm4500-cn e-2011	
TOTAL PHENOLIC COMPOUNDS	0.127	mg/l			0.071	mg/l				EPA420.1	
HARDNESS (AS CaCO3)	923	mg/l			803	mg/l				sm2340b-2011	
Use this space (or a separate sheet) to provide information on other metals requested by the permit writer											

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POLLUTANT	MAXIMUM DAILY DISCHARGE				AVERAGE DAILY DISCHARGE					ANALYTICAL METHOD	ML/MDL
	Conc.	Units	Mass	Units	Conc.	Units	Mass	Units	Number of Samples		
VOLATILE ORGANIC COMPOUNDS											
ACROLEIN	<20.0	ug/l								EPA 634	
ACRYLONITRILE	<20.0	ug/l								EPA 634	
BENZENE	<1.0	ug/l								EPA 634	
BROMOFORM	2.58	ug/l			2.06	ug/l				EPA 634	
CARBON TETRACHLORIDE	<1.00	ug/l								EPA 634	
COLORBENZENE	<1.00	ug/l								EPA 634	
CHLOROBIDBROMO-METHANE	15.5	ug/l			11.5	ug/l				EPA 634	
CHLOROETHANE	<1.00	ug/l								EPA 634	
2-CHLORO-ETHYLVINYL ETHER	<5.00	ug/l								EPA 634	
CHOLOROFORM	24.6	ug/l			16.8	ug/l				EPA 634	
DICHLOROBROMO-METHANE	24.4	ug/l			17.0	ug/l				EPA 634	
1,1-DICHLOROETHANE	<1.00	ug/l								EPA 634	
TRANS-1,2-DICHLORO-ETHYLENE											
1,1-DICHLOROPROPANE											
ETHYLBENZENE	<1.00	ug/l								EPA 634	
METHYL BROMIDE											
METHYL CHLORIDE											
METHYLENE CHLORIDE	<10.00	ug/l								EPA 634	
1,1,2,2-TETRACHLORO-ETHANE	<1.00	ug/l								EPA 634	
TETRACHLORO-ETHYLENE											
TOLUENE	<5.00	ug/l								EPA 634	

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POLLUTANT	MAXIMUM DAILY DISCHARGE				AVERAGE DAILY DISCHARGE					ANALYTICAL METHOD	ML/MDL
	Conc.	Units	Mass	Units	Conc.	Units	Mass	Units	Number of Samples		
1,1,1-TRICHLOROETHANE	<1.00	ug/l								EPA 634	
1,1,2-TRICHLOROETHANE	<1.00	ug/l								EPA 634	
TRICHLOROETHYLENE											
VINYL CHLORIDE	<1.00	ug/l								EPA 634	
Use this space (or a separate sheet) to provide information on other metals requested by the permit writer											
ACID-EXTRACTABLE COMPOUNDS											
P-CHLORO-M-CRESOL											
2-CHLOROPHENOL	<5.00	ug/l								EPA 634	
2,4-DIMETHYLPHENOL	<5.00	ug/l								EPA 634	
4,6-DINITRO-O-CRESOL											
2,4-DINITROPHENOL	<5.00	ug/l								EPA 634	
2-NITROPHENOL	<5.00	ug/l								EPA 634	
4-NITROPHENOL	<5.00	ug/l								EPA 634	
PENTA CHLOROPHENOL	<5.00	ug/l								EPA 634	
PHENOL	<5.00	ug/l								EPA 634	
2,4,6-TRICHLORO PHENOL	<5.00	ug/l								EPA 634	
Use this space (or a separate sheet) to provide information on other metals requested by the permit writer											
BASE-NEUTRAL COMPOUNDS											
ACENAPHTHENE	<2.00	ug/l								EPA 634	
ACENAPHTYLENE	<2.00	ug/l								EPA 634	
ANTHRACENE	<2.00	ug/l								EPA 634	
BENZIDINE	<2.00	ug/l								EPA 634	
BENZO(A) ANTHRACENE	<2.00	ug/l								EPA 634	
BENZO(A)PYRENE	<2.00	ug/l								EPA 634	

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POLLUTANT	MAXIMUM DAILY DISCHARGE				AVERAGE DAILY DISCHARGE					ANALYTICAL METHOD	ML/MDL
	Conc.	Units	Mass	Units	Conc.	Units	Mass	Units	Number of Samples		
3.4 BENZO-FLUORANTHENE	<2.00	ug/l								EPA 625	
BENZO(GHI)PERYLENE	<2.00	ug/l								EPA 625	
BENZO(K)FLUORANTHENE	<2.00	ug/l								EPA 625	
BIS (2-CHLORO ETHOXY) METHANE	<5.00	ug/l								EPA 625	
BIS (2-CHLOROETHYL)-ETHER	<5.00	ug/l								EPA 625	
BIS (2-CHLOROISO-PROPYL) ETHER	<5.00	ug/l								EPA 625	
BIS (2-ETHYLHEXYL) PHTHALATE	<10.00	ug/l								EPA 625	
4-BROMOPHENYL PHENYL ETHER	<5.00	ug/l								EPA 625	
BUTYL BENZYL PHTHALATE	<5.00	ug/l								EPA 625	
2-CHLORO NAPHTHALENE	<5.00	ug/l								EPA 625	
4-CHLORPHENYL PHENYL ETHER	<5.00	ug/l								EPA 625	
CHRYSENE	<2.00	ug/l								EPA 625	
DI-N-BUTYL PHTHALATE	<5.00	ug/l								EPA 625	
DI-N-OCTYL PHTHALATE	<5.00	ug/l								EPA 625	
DIBENZO(A,H) ANTHRACENE	<2.00	ug/l								EPA 625	
1,2-DICHLORO BENZENE	<5.00	ug/l								EPA 625	
1,3-DICHLORO BENZENE	<5.00	ug/l								EPA 625	
1,4-DICHLORO BENZENE	<5.00	ug/l								EPA 625	
3,3-DICHLORO BENZIDINE	<5.00	ug/l								EPA 625	
DIETHYL PHTHALATE	<5.00	ug/l								EPA 625	
DIMETHYL PHTHALATE	<5.00	ug/l								EPA 625	
2,4-DINITROTOLUENE	<5.00	ug/l								EPA 625	
2,6-DINITROTOLUENE	<5.00	ug/l								EPA 625	
1,2-DIPHENYLHYDRAZINE	<5.00	ug/l								EPA 625	

FACILITY NAME AND PERMIT NUMBER:

Fort Chiswell WWTP VA0074161

Form Approved 1/14/99
OMB Number 2040-0086

Outfall number: 001 (Complete once for each outfall discharging effluent to waters of the United States.)

POLLUTANT	MAXIMUM DAILY DISCHARGE				AVERAGE DAILY DISCHARGE					ANALYTICAL METHOD	ML/MDL
	Conc.	Units	Mass	Units	Conc.	Units	Mass	Units	Number of Samples		
FLUORANTHENE	<2.00	ug/l								EPA 625	
FLUORENE	<2.00	ug/l								EPA 625	
HEXACHLORO BENZENE	<5.00	ug/l								EPA 625	
HEXACHLOROBUT ADIENE	<5.00	ug/l								EPA 625	
HEXACHLOROCYCLO-PENTADIENE	<5.00	ug/l								EPA 625	
HEXA CHLOROETHANE	<5.00	ug/l								EPA 625	
INDENO(1,2,3-CD) PYRENE	<2.00	ug/l								EPA 625	
ISOPHORONE	<5.00	ug/l								EPA 625	
NAPHTHALENE	<2.00	ug/l								EPA 625	
NITROBENZENE	<5.00	ug/l								EPA 625	
N-NITROSODI-N-PROPYLAMINE	<5.00	ug/l								EPA 625	
N-NITROSODI-METHYLAMINE	<5.00	ug/l								EPA 625	
N-NITROSODI-PHENYLAMINE	<10.00	ug/l								EPA 625	
PHENANTHRENE	<2.00	ug/l								EPA 625	
PYRENE	<2.00	ug/l								EPA 625	
1,2,4-TRICHLOROBENZENE	<5.00	ug/l								EPA 625	
Use this space (or a separate sheet) to provide information on other metals requested by the permit writer											
Use this space (or a separate sheet) to provide information on other metals requested by the permit writer											

END OF PART D.
REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM 2A YOU MUST COMPLETE

FACILITY NAME AND PERMIT NUMBER:

Fort Chiswell WWTP VA0074161

Form Approved 1/14/99
OMB Number 2040-0086

SUPPLEMENTAL APPLICATION INFORMATION

PART E. TOXICITY TESTING DATA

POTWs meeting one or more of the following criteria must provide the results of whole effluent toxicity tests for acute or chronic toxicity for each of the facility's discharge points: 1) POTWs with a design flow rate greater than or equal to 1.0 mgd; 2) POTWs with a pretreatment program (or those that are required to have one under 40 CFR Part 403); or 3) POTWs required by the permitting authority to submit data for these parameters.

- At a minimum, these results must include quarterly testing for a 12-month period within the past 1 year using multiple species (minimum of two species), or the results from four tests performed at least annually in the four and one-half years prior to the application, provided the results show no appreciable toxicity, and testing for acute and/or chronic toxicity, depending on the range of receiving water dilution. Do not include information on combined sewer overflows in this section. All information reported must be based on data collected through analysis conducted using 40 CFR Part 136 methods. In addition, this data must comply with QA/QC requirements of 40 CFR Part 136 and other appropriate QA/QC requirements for standard methods for analytes not addressed by 40 CFR Part 136.
- In addition, submit the results of any other whole effluent toxicity tests from the past four and one-half years. If a whole effluent toxicity test conducted during the past four and one-half years revealed toxicity, provide any information on the cause of the toxicity or any results of a toxicity reduction evaluation, if one was conducted.
- If you have already submitted any of the information requested in Part E, you need not submit it again. Rather, provide the information requested in question E.4 for previously submitted information. If EPA methods were not used, report the reasons for using alternate methods. If test summaries are available that contain all of the information requested below, they may be submitted in place of Part E.

If no biomonitoring data is required, do not complete Part E. Refer to the Application Overview for directions on which other sections of the form to complete.

E.1. Required Tests.

Indicate the number of whole effluent toxicity tests conducted in the past four and one-half years.

☐ chronic ☐ acute

E.2. Individual Test Data. Complete the following chart for each whole effluent toxicity test conducted in the last four and one-half years. Allow one column per test (where each species constitutes a test). Copy this page if more than three tests are being reported.

	Test number: attached	Test number: _____	Test number: _____
a. Test information.			
Test Species & test method number			
Age at initiation of test			
Outfall number			
Dates sample collected			
Date test started			
Duration			
b. Give toxicity test methods followed.			
Manual title			
Edition number and year of publication			
Page number(s)			
c. Give the sample collection method(s) used. For multiple grab samples, indicate the number of grab samples used.			
24-Hour composite			
Grab			
d. Indicate where the sample was taken in relation to disinfection. (Check all that apply for each.			
Before disinfection			
After disinfection			
After dechlorination			

FACILITY NAME AND PERMIT NUMBER: Fort Chiswell WWTP VA0074161			

Form Approved 1/14/99
OMB Number 2040-0086

	Test number: _____	Test number: _____	Test number: _____
e. Describe the point in the treatment process at which the sample was collected.			
Sample was collected:			
f. For each test, include whether the test was intended to assess chronic toxicity, acute toxicity, or both			
Chronic toxicity			
Acute toxicity			
g. Provide the type of test performed.			
Static			
Static-renewal			
Flow-through			
h. Source of dilution water. If laboratory water, specify type; if receiving water, specify source.			
Laboratory water			
Receiving water			
i. Type of dilution water. If salt water, specify "natural" or type of artificial sea salts or brine used.			
Fresh water			
Salt water			
j. Give the percentage effluent used for all concentrations in the test series.			
k. Parameters measured during the test. (State whether parameter meets test method specifications)			
pH			
Salinity			
Temperature			
Ammonia			
Dissolved oxygen			
l. Test Results.			
Acute:			
Percent survival in 100% effluent	%	%	%
LC_{50}			
95% C.I.	%	%	%
Control percent survival	%	%	%
Other (describe)			

Chronic:			
NOEC	%	%	%
IC_{25}	%	%	%
Control percent survival	%	%	%
Other (describe)			
m. Quality Control/Quality Assurance.			
Is reference toxicant data available?			
Was reference toxicant test within acceptable bounds?			
What date was reference toxicant test run (MM/DD/YYYY)?	/ /	/ /	/ /
Other (describe)			

E.3. Toxicity Reduction Evaluation. Is the treatment works involved in a Toxicity Reduction Evaluation?

☐ Yes ☐ No If yes, describe: _____

E.4. Summary of Submitted Biomonitoring Test Information. If you have submitted biomonitoring test information, or information regarding the cause of toxicity, within the past four and one-half years, provide the dates the information was submitted to the permitting authority and a summary of the results.

Date submitted: ____/____/____ (MM/DD/YYYY)

Summary of results: (see instructions)

END OF PART E.
REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM 2A YOU MUST COMPLETE.

Client: Environmental Management Services, Inc.
Project ID: EMSI1504
Client Sample ID: Fort Chiswell WWTP Outfall 001
Permit No: VA0074161
Sample Period: 8/17/15 to 8/20/15

C B I

Coastal Bioanalysts, Inc.

Report of Analysis: Whole Effluent Toxicity (WET)

Submitted To:	**Prepared By:**
Mr. Mychel Johnson Environmental Management Services, Inc. P.O. Box 784 Wytheville, VA 24382	Coastal Bioanalysts, Inc. 6400 Enterprise Court Gloucester, VA 23061 (804) 694-8285 www.coastalbio.com Contact: Peter F. De Lisle, Technical Director

Chronic Test Results*

Species-Test Method	Endpoint	NOEC	LOEC	ChrV	PMSD	$T.U._C$	IC25	48-h LC50	LC50 95% C.L.	$T.U._{Ac}$
C. dubia	Survival	100	>100	>100	N/A	1.00	N/A	>100	N/A	<1.00
EPA 1002.0	Reproduction	52.5	100	72.5	28	**1.90**	68.9	N/A	N/A	N/A
P. promelas	Survival	100	>100	>100	N/A	1.00	N/A	>100	N/A	<1.00
EPA 1000.0	Biomass	100	>100	>100	16	**1.00**	>100	N/A	N/A	N/A

*Note: Details regarding test conduct and data analysis provided in attached bench sheets and printouts as applicable.
For each test method record the highest endpoint T.U.c value (bold) on the DMR.

Chronic Test QA/QC Reference Toxicant: KCl Units: mg/l Test Organism Source: CBI Stock Cultures

Species-Method (Ref. Test Date)	Data Source	% Survival		Reproduction (# Young) or Biomass (mg)					RTT in Control?
		Cont.	NOEC	Cont.	NOEC	PMSD	IC25	IC25 A.L.	
C. dubia 1002.0	RTT	100	500	30.3	250	16	377	N/A	Yes
(8/19/15-8/25/15)	CC	99	500	27.5	250	18	341	271-412	
P. promelas 1000.0	RTT	100	500	0.70	250	11	639	N/A	Yes
(8/1/15-8/8/15)	CC	99	500	0.62	500	14	618	583-654	

Note: RTT = Reference Toxicant Test, CC = Control Chart, Cont. = Control group.

The results of analysis contained within this report relate only to the sample as received in the laboratory. This report shall not be reproduced except in full without written approval from the laboratory. Unless noted below, these test results meet all requirements of NELAP.

APPROVED:

Peter F. De Lisle, Ph.D.
Technical Director

8/27 /15
Date

Deviations from, additions to, or exclusions from the test method, non-standard conditions or data qualifiers and, as appropriate, a statement of compliance/non-compliance: **NONE**

VELAP# 460030
EPA# VA01116

NELAP ACCREDITED LABORATORY

Client: Environmental Management Services, Inc.
Project ID: EMSI1406
Client Sample ID: Fort Chiswell WWTP Outfall 001
Permit No: VA0074161
Sample Period: 8/18/14 to 8/21/14

C B 1

Coastal Bioanalysts, Inc.

Report of Analysis: Whole Effluent Toxicity (WET)

Submitted To:	**Prepared By:**
Mr. Mychel Johnson Environmental Management Services, Inc. P.O. Box 784 Wytheville, VA 24382	Coastal Bioanalysts, Inc. 6400 Enterprise Court Gloucester, VA 23061 (804) 694-8285 www.coastalbio.com Contact: Peter F. De Lisle, Technical Director

Chronic Test Results*

Species-Test Method	Endpoint	NOEC	LOEC	ChrV	PMSD	$T.U._C$	IC25	48-h LC50	LC50 95% C.L.	$T.U._{Ac}$
C. dubia	Survival	100	>100	>100	N/A	1.00	N/A	>100	N/A	<1.00
EPA 1002.0	Reproduction	52.5	100	72.5	18	**1.90**	>100	N/A	N/A	N/A
P. promelas	Survival	100	>100	>100	N/A	1.00	N/A	>100	N/A	<1.00
EPA 1000.0	Biomass	100	>100	>100	19	**1.00**	>100	N/A	N/A	N/A

*Note: Details regarding test conduct and data analysis provided in attached bench sheets and printouts as applicable.
For each test method record the highest endpoint T.U.c value (bold) on the DMR.

Chronic Test QA/QC Reference Toxicant: KCl Units: mg/l Test Organism Source: CBI Stock Cultures

Species-Method (Ref. Test Date)	Data Source	% Survival		Reproduction (# Young) or Biomass (mg)					RTT in Control?
		Cont.	NOEC	Cont.	NOEC	PMSD	IC25	IC25 A.L.	
C. dubia 1002.0	RTT	100	500	28.9	250	15	349	N/A	Yes
(8/1/14-8/7/14)	CC	99	500	26.4	250	20	337	263-411	
P. promelas 1000.0	RTT	98	500	0.54	500	14	604	N/A	Yes
(8/1/14-8/8/14)	CC	99	500	0.62	500	14	626	592-661	

Note: RTT = Reference Toxicant Test, CC = Control Chart, Cont. = Control group.

The results of analysis contained within this report relate only to the sample as received in the laboratory. This report shall not be reproduced except in full without written approval from the laboratory. Unless noted below, these test results meet all requirements of NELAP.

APPROVED:

Peter F. De Lisle, Ph.D.
Technical Director

8/27 /14
Date

Deviations from, additions to, or exclusions from the test method, non-standard conditions or data qualifiers and, as appropriate, a statement of compliance/non-compliance: **NONE**

VELAP# 460030
EPA# VA01116

Client: Environmental Management Services, Inc.
Project ID: EMSI1309
Client Sample ID: Fort Chiswell WWTP Outfall 001
Permit No: VA0074161
Sample Period: 9/9/13 to 9/12/13

Coastal Bioanalysts, Inc.

Report of Analysis: Whole Effluent Toxicity (WET)

Submitted To:	**Prepared By:**
Mr. Michael Johnson Environmental Management Services, Inc. P.O. Box 784 Wytheville, VA 24382	Coastal Bioanalysts, Inc. 6400 Enterprise Court Gloucester, VA 23061 (804) 694-8285 www.coastalbio.com Contact: Peter F. De Lisle, Technical Director

Chronic Test Results*

Species-Test Method	Endpoint	NOEC	LOEC	ChrV	PMSD	$T.U._C$	IC25	48-h LC50	LC50 95% C.L.	$T.U._{Ac}$
C. dubia	Survival	100	>100	>100	N/A	1.00	N/A	>100	N/A	<1.00
EPA 1002.0	Reproduction	100	>100	>100	25	1.00	>100	N/A	N/A	N/A
P. promelas	Survival	100	>100	>100	N/A	1.00	N/A	>100	N/A	<1.00
EPA 1000.0	Biomass	100	>100	>100	10	1.00	>100	N/A	N/A	N/A

*Note: Details regarding test conduct and data analysis provided in attached bench sheets and printouts as applicable.

Chronic Test QA/QC **Reference Toxicant: KCl** **Units: mg/l** **Test Organism Source: CBI Stock Cultures**

Species-Method (Ref. Test Date)	Data Source	% Survival		Reproduction (# Young) or Biomass (mg)					RTT in Control?
		Cont.	NOEC	Cont.	NOEC	PMSD	IC25	IC25 A.L.	
C. dubia 1002.0	RTT	100	250	24.2	250	24	356	N/A	Yes
(9/1/13-9/7/13)	CC	98	500	26.3	250	23	322	230-413	
P. promelas 1000.0	RTT	98	500	0.63	500	12	621	N/A	Yes
(9/3/13-9/10/13)	CC	98	500	0.69	500	15	613	568-658	

Note: RTT = Reference Toxicant Test, CC = Control Chart, Cont. = Control group.

The results of analysis contained within this report relate only to the sample as received in the laboratory. This report shall not be reproduced except in full without written approval from the laboratory. Unless noted below, these test results meet all requirements of NELAP.

APPROVED:

Peter F. De Lisle, Ph.D.
Technical Director

9/18 /13
Date

Deviations from, additions to, or exclusions from the test method, non-standard conditions or data qualifiers and, as appropriate, a statement of compliance/non-compliance: **NONE**

VELAP# 460030
EPA# VA01116

REIC Sample ID: 1302G56-01A
Client Sample ID: Outfall 001

Client Name: Wythe County Water & Wastewater Authority
VPDES Permit #: VA0074161

REI CONSULTANTS, INC.
TEST RESULTS

Ceriodaphnia dubia

Survival Data:		Statistical Test Method:	Data Qualifiers:
LC50	>100.0	None Needed	
NOEC	100.0	Fisher's Exact test	
LOEC	>100.0	Fisher's Exact test	
TUC	1.0		

Reproduction Data:		Statistical Test Method:	Data Qualifiers:
NOEC	100.0	Steel's Many One Rank test	
LOEC	>100.0	Steel's Many One Rank test	
IC25	51.14	Linear Interpolation	
TUC	1.0		
PMSD	37.66		

Key:
LC50 - Lethal Concentration to 50% of population at 48 hours
NOEC - No Observable Effect Concentration
LOEC - Lowest Observable Effect Concentration
TUC - Toxicity Units Chronic
IC25 - 25% Inhibition Concentration
PMSD - Percent Minimum Significant Difference

Qualifiers:
P - Initial pH falls outside the range of 6.0 - 9.0
H - 36 Hour Hold Time Exceeded
T - Initial Temperature exceeded 0 - 6° Range

APPROVED _____
Michael Lester
Bioassay Lab Manager

BIOLOGICAL MONITORING, INC.
Chronic Toxicity Test Data Summary

Client	Ft. Chiswell		NPDES Permit # VA0074161	
Test Organism	*Pimephales promelas*		Date	Time
Experiment ID	FC100611-1	Start Test	10/6/11	1115
Sample Tested	Effluent	End Test	10/13/11	1019

RESULTS

Water Chemistry Analyses Survival and Growth
Initial (Range)

Conc. (%)	Temp. (°C)		D.O. (mg/L)		pH		Alkalinity (mg/L as $CaCO_3$)		Hardness (mg/L as $CaCO_3$)		Cond. (µmhos)		Survival (%)		Mean Weight (mg)
	0h	Range	0h	Range	0h	Range	0h	Range	0h	Range	0h	Range	96h	7d	
0	25	25	7.73	5.81-8.08	7.68	7.59-7.83	64	64	88	88	304	304-319	95	92.5	0.576
6.25	25	25	7.71	5.52-8.06	7.67	7.61-7.86					404	397-421	97.5	97.5	0.575
12.5	25	25	7.66	5.32-8.05	7.69	7.68-8.05					501	480-528	97.5	97.5	0.675
25	25	25	7.59	5.38-8.06	7.72	7.57-8.26					689	649-742	97.5	97.5	0.708
50	25	25	7.56	5.16-8.07	7.73	7.57-8.44					1068	989-1167	97.5	97.5	0.711
100	25	25	7.50	5.09-8.11	7.64	7.43-8.46	400	400	590	590	1789	1658-1993	92.5	82.5	0.469

Dilution Water and Test Sample
Initial Use Chemistry

Batch/Sample ID	Temp. (°C)	D.O. (mg/L)	pH	Alkalinity (mg/L as $CaCO_3$)	Hardness (mg/L as $CaCO_3$)	Cond. (µmhos)	TRC (mg/L)
FC100511	25	7.76	7.58	400	590	1764	<0.02
FC100711	25	7.90	7.70	630	430	1650	<0.02
FC101011	25	8.70	7.73	610	820	1984	<0.02
MHRW092711	25	7.66	7.86	64	88	296	<0.02
MHRW101211	25	8.08	7.87	62	90	305	<0.02

STATISTICAL ANALYSES

Test Method	End Point		
Steel's Many One Rank Sum	**Survival**	**NOEC = 100% TUc = 1**	**LOEC >100%**
Dunnett's	**Growth**	**NOEC = 100% TUc = 1**	**LOEC >100%**
Linear Interpolation	**Growth**	**IC25 Growth = 94.9%**	

NOEC = No Observed Effect Concentration LOEC = Lowest Observed Effect Concentration

SURVIVAL DATA

1. Arcsin Square Root transformation was used.
2. Data FAIL normality test using Shapiro-Wilke's Test.
3. Data PASS homogeneity test using Bartlett's Test.
4. *Pimephales promelas* survival in all effluent concentrations were not significantly different from survival in the control using Steel's Many One Rank Sum Test (p = 0.05).

GROWTH DATA

1. No transformation was used.
2. Data PASS normality test using Shapiro-Wilke's Test.
3. Data PASS homogeneity test using Bartlett's Test.
4. *Pimephales promelas* growth in all effluent concentrations were not significantly different from growth in the control using Dunnett's Test (p = 0.05).

Comments: Growth PMSD = 24.388%

RECEIVED
JUN 17 2016
DEQ SWRO

Form Approved 1/14/99
OMB Number 2040-0086

SUPPLEMENTAL APPLICATION INFORMATION

PART F. INDUSTRIAL USER DISCHARGES AND RCRA/CERCLA WASTES

All treatment works receiving discharges from significant industrial users or which receive RCRA,CERCLA, or other remedial wastes must complete part F.

GENERAL INFORMATION:

F.1. Pretreatment program. Does the treatment works have, or is subject ot, an approved pretreatment program?

☒ Yes ☐ No

F.2. Number of Significant Industrial Users (SIUs) and Categorical Industrial Users (CIUs). Provide the number of each of the following types of industrial users that discharge to the treatment works.

a. Number of non-categorical SIUs. 2

b. Number of CIUs. 1

SIGNIFICANT INDUSTRIAL USER INFORMATION::

Supply the following information for each SIU. If more than one SIU discharges to the treatment works, copy questions F.3 through F.8 and provide the information requested for each SIU.

F.3. Significant Industrial User Information. Provide the name and address of each SIU discharging to the treatment works. Submit additional pages as necessary.

Name: Somic America

Mailing Address: 343 East Lee Trinkle Drive

Wytheville, VA 24382

F.4. Industrial Processes. Describe all the industrial processes that affect or contribute to the SIU's discharge.

Metal Plating and Machining

F.5. Principal Product(s) and Raw Material(s). Describe all of the principal processes and raw materials that affect or contribute to the SIU's discharge.

Principal product(s): Machining of automotive parts and electro plating, finishing

Raw material(s): Various metals, including Zn, Cu, Pb, Ni, Ag

F.6. Flow Rate.

a. Process wastewater flow rate. Indicate the average daily volume of process wastewater discharge into the collection system in gallons per day (gpd) and whether the discharge is continuous or intermittent.

33000 gpd (continuous or X intermittent)

b. Non-process wastewater flow rate. Indicate the average daily volume of non-process wastewater flow discharged into the collection system in gallons per day (gpd) and whether the discharge is continuous or intermittent.

2000 gpd (X continuous or intermittent)

F.7. Pretreatment Standards. Indicate whether the SIU is subject to the following:

a. Local limits ☒ Yes ☐ No

b. Categorical pretreatment standards ☒ Yes ☐ No

If subject to categorical pretreatment standards, which category and subcategory?

Metal Finishing and Electro Plating

F.8. Problems at the Treatment Works Attributed to Waste Discharge by the SIU. Has the SIU caused or contributed to any problems (e.g., upsets, interference) at the treatment works in the past three years?

☐ Yes ☒ No If yes, describe each episode.

RCRA HAZARDOUS WASTE RECEIVED BY TRUCK, RAIL, OR DEDICATED PIPELINE:

F.9. RCRA Waste. Does the treatment works receive or has it in the past three years received RCRA hazardous waste by truck, rail or dedicated pipe?

☐ Yes ☒ No (go to F.12)

F.10 Waste transport. Method by which RCRA waste is received (check all that apply):

☐ Truck ☐ Rail ☐ Dedicated Pipe

F.11 Waste Description. Give EPA hazardous waste number and amount (volume or mass, specify units).

EPA Hazardous Waste Number	Amount	Units

CERCLA (SUPERFUND) WASTEWATER, RCRA REMEDIATION/CORRECTIVE ACTION WASTEWATER, AND OTHER REMEDIAL ACTIVITY WASTEWATER:

F.12 Remediation Waste. Does the treatment works currently (or has it been notified that it will) receive waste from remedial activities?

☐ Yes (complete F.13 through F.15.) ☒ No

F.13 Waste Origin. Describe the site and type of facility at which the CERCLA/RCRA/or other remedial waste originates (or is excepted to originate in the next five years).

F.14 Pollutants. List the hazardous constituents that are received (or are expected to be received). Include data on volume and concentration, if known. (Attach additional sheets if necessary.)

F.15 Waste Treatment.

a. Is this waste treated (or will be treated) prior to entering the treatment works?

☐ Yes ☐ No

If yes, describe the treatment (provide information about the removal efficiency):

b. Is the discharge (or will the discharge be) continuous or intermittent?

☐ Continuous ☐ Intermittent **If intermittent, describe discharge schedule.**

END OF PART F.

REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM 2A YOU MUST COMPLETE

FACILITY NAME AND PERMIT NUMBER:

Fort Chiswell WWTP VA0074161

Form Approved 1/14/99
OMB Number 2040-0086

SUPPLEMENTAL APPLICATION INFORMATION

PART F. INDUSTRIAL USER DISCHARGES AND RCRA/CERCLA WASTES

All treatment works receiving discharges from significant industrial users or which receive RCRA,CERCLA, or other remedial wastes must complete part F.

GENERAL INFORMATION:

F.1. Pretreatment program. Does the treatment works have, or is subject ot, an approved pretreatment program?

☒ Yes ☐ No

F.2. Number of Significant Industrial Users (SIUs) and Categorical Industrial Users (CIUs). Provide the number of each of the following types of industrial users that discharge to the treatment works.

a. Number of non-categorical SIUs. 2

b. **Number of CIUs.** 1

SIGNIFICANT INDUSTRIAL USER INFORMATION::

Supply the following information for each SIU. If more than one SIU discharges to the treatment works, copy questions F.3 through F.8 and provide the information requested for each SIU.

F.3. Significant Industrial User Information. Provide the name and address of each SIU discharging to the treatment works. Submit additional pages as necessary.

Name: SVC Manufacturing - Gatorade (QTG)

Mailing Address: 316 Gator Lane

Wytheville, VA 24382

F.4. Industrial Processes. Describe all the industrial processes that affect or contribute to the SIU's discharge.

Beverage Production and Bottling, RO Filter Backwash

F.5. Principal Product(s) and Raw Material(s). Describe all of the principal processes and raw materials that affect or contribute to the SIU's discharge.

Principal product(s): Gatorade and Associated Beverages

Raw material(s): Water, Sweeteners, Confidential Ingredients

F.6. Flow Rate.

a. Process wastewater flow rate. Indicate the average daily volume of process wastewater discharge into the collection system in gallons per day (gpd) and whether the discharge is continuous or intermittent.

320000 gpd (X continuous or _____ intermittent)

b. Non-process wastewater flow rate. Indicate the average daily volume of non-process wastewater flow discharged into the collection system in gallons per day (gpd) and whether the discharge is continuous or intermittent.

5000 gpd (X continuous or _____ intermittent)

F.7. Pretreatment Standards. Indicate whether the SIU is subject to the following:

a. Local limits ☒ Yes ☐ No

b. Categorical pretreatment standards ☐ Yes ☒ No

If subject to categorical pretreatment standards, which category and subcategory?

F.8. **Problems at the Treatment Works Attributed to Waste Discharge by the SIU.** Has the SIU caused or contributed to any problems (e.g., upsets, interference) at the treatment works in the past three years?

☒ Yes ☐ No If yes, describe each episode.

Details included in annual pretreatment reports and other correspondence with DEQ.

RCRA HAZARDOUS WASTE RECEIVED BY TRUCK, RAIL, OR DEDICATED PIPELINE:

F.9. **RCRA Waste.** Does the treatment works receive or has it in the past three years received RCRA hazardous waste by truck, rail or dedicated pipe?

☐ Yes ☒ No (go to F.12)

F.10 **Waste transport.** Method by which RCRA waste is received (check all that apply):

☐ Truck ☐ Rail ☐ Dedicated Pipe

F.11 **Waste Description.** Give EPA hazardous waste number and amount (volume or mass, specify units).

EPA Hazardous Waste Number	Amount	Units

CERCLA (SUPERFUND) WASTEWATER, RCRA REMEDIATION/CORRECTIVE ACTION WASTEWATER, AND OTHER REMEDIAL ACTIVITY WASTEWATER:

F.12 **Remediation Waste.** Does the treatment works currently (or has it been notified that it will) receive waste from remedial activities?

☐ Yes (complete F.13 through F.15.) ☒ No

F.13 **Waste Origin.** Describe the site and type of facility at which the CERCLA/RCRA/or other remedial waste originates (or is excepted to originate in the next five years).

F.14 **Pollutants.** List the hazardous constituents that are received (or are expected to be received). Include data on volume and concentration, if known. (Attach additional sheets if necessary.)

F.15 **Waste Treatment.**

a. Is this waste treated (or will be treated) prior to entering the treatment works?

☐ Yes ☐ No

If yes, describe the treatment (provide information about the removal efficiency):

b. Is the discharge (or will the discharge be) continuous or intermittent?

☐ Continuous ☐ Intermittent If intermittent, describe discharge schedule.

END OF PART F.
REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM 2A YOU MUST COMPLETE

FACILITY NAME AND PERMIT NUMBER:

Fort Chiswell WWTP VA0074161

Form Approved 1/14/99
OMB Number 2040-0086

SUPPLEMENTAL APPLICATION INFORMATION

PART F. INDUSTRIAL USER DISCHARGES AND RCRA/CERCLA WASTES

All treatment works receiving discharges from significant industrial users or which receive RCRA,CERCLA, or other remedial wastes must complete part F.

GENERAL INFORMATION:

F.1. Pretreatment program. Does the treatment works have, or is subject ot, an approved pretreatment program?

☒ Yes ☐ No

F.2. Number of Significant Industrial Users (SIUs) and Categorical Industrial Users (CIUs). Provide the number of each of the following types of industrial users that discharge to the treatment works.

a. Number of non-categorical SIUs. 2

b. **Number of CIUs.** 1

SIGNIFICANT INDUSTRIAL USER INFORMATION::

Supply the following information for each SIU. If more than one SIU discharges to the treatment works, copy questions F.3 through F.8 and provide the information requested for each SIU.

F.3. Significant Industrial User Information. Provide the name and address of each SIU discharging to the treatment works. Submit additional pages as necessary.

Name: Amcor Rigid Plastics USA, Inc.

Mailing Address: 474 Gator Lane

Wytheville, VA 24382

F.4. Industrial Processes. Describe all the industrial processes that affect or contribute to the SIU's discharge.

Plastics Manufacturing, Condenser and Cooling Tower Blowdown

F.5. Principal Product(s) and Raw Material(s). Describe all of the principal processes and raw materials that affect or contribute to the SIU's discharge.

Principal product(s): Plastic Bottles

Raw material(s): PET Resin

F.6. Flow Rate.

a. Process wastewater flow rate. Indicate the average daily volume of process wastewater discharge into the collection system in gallons per day (gpd) and whether the discharge is continuous or intermittent.

17000 gpd (X continuous or _____ intermittent)

b. Non-process wastewater flow rate. Indicate the average daily volume of non-process wastewater flow discharged into the collection system in gallons per day (gpd) and whether the discharge is continuous or intermittent.

28000 gpd (X continuous or _____ intermittent)

F.7. Pretreatment Standards. Indicate whether the SIU is subject to the following:

a. Local limits ☒ Yes ☐ No

b. Categorical pretreatment standards ☐ Yes ☒ No

If subject to categorical pretreatment standards, which category and subcategory?

F.8. Problems at the Treatment Works Attributed to Waste Discharge by the SIU. Has the SIU caused or contributed to any problems (e.g., upsets, interference) at the treatment works in the past three years?

☐ Yes ☒ No If yes, describe each episode.

RCRA HAZARDOUS WASTE RECEIVED BY TRUCK, RAIL, OR DEDICATED PIPELINE:

F.9. RCRA Waste. Does the treatment works receive or has it in the past three years received RCRA hazardous waste by truck, rail or dedicated pipe?

☐ Yes ☒ No (go to F.12)

F.10 Waste transport. Method by which RCRA waste is received (check all that apply):

☐ Truck ☐ Rail ☐ Dedicated Pipe

F.11 Waste Description. Give EPA hazardous waste number and amount (volume or mass, specify units).

EPA Hazardous Waste Number	Amount	Units

CERCLA (SUPERFUND) WASTEWATER, RCRA REMEDIATION/CORRECTIVE ACTION WASTEWATER, AND OTHER REMEDIAL ACTIVITY WASTEWATER:

F.12 Remediation Waste. Does the treatment works currently (or has it been notified that it will) receive waste from remedial activities?

☐ Yes (complete F.13 through F.15.) ☒ No

F.13 Waste Origin. Describe the site and type of facility at which the CERCLA/RCRA/or other remedial waste originates (or is excepted to originate in the next five years).

F.14 Pollutants. List the hazardous constituents that are received (or are expected to be received). Include data on volume and concentration, if known. (Attach additional sheets if necessary.)

F.15 Waste Treatment.

a. Is this waste treated (or will be treated) prior to entering the treatment works?

☐ Yes ☐ No

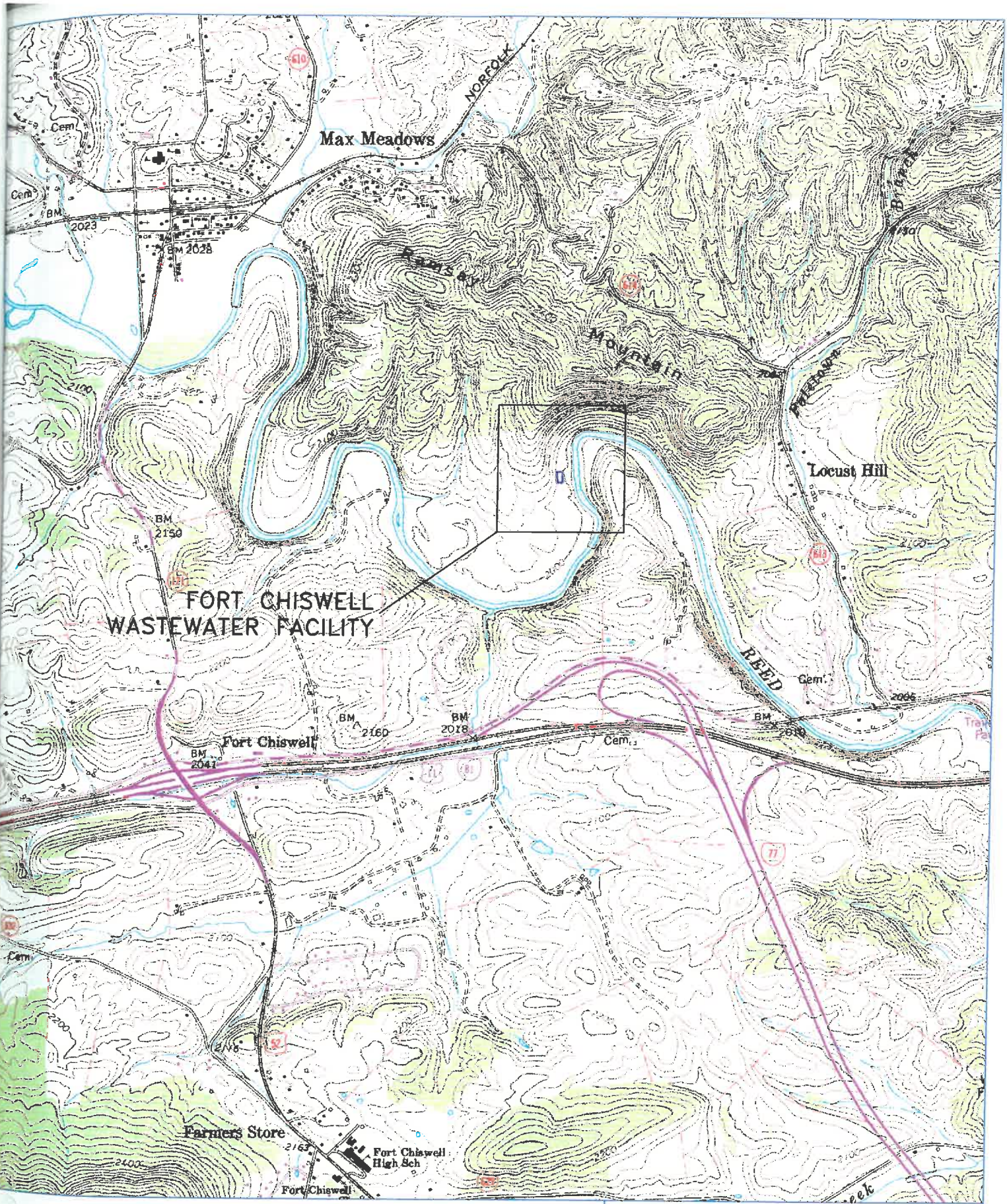
If yes, describe the treatment (provide information about the removal efficiency):

b. Is the discharge (or will the discharge be) continuous or intermittent?

☐ Continuous ☐ Intermittent If intermittent, describe discharge schedule.

END OF PART F.
REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM 2A YOU MUST COMPLETE

APPENDIX A



Pentree Incorporated
Consulting Engineers

FORT CHISWELL
WASTEWATER FACILITY
WYTHE COUNTY, VA.

SCALE: 1" =2000'

SHEET 1 OF 1 | DATE: OCTOBER, 2005

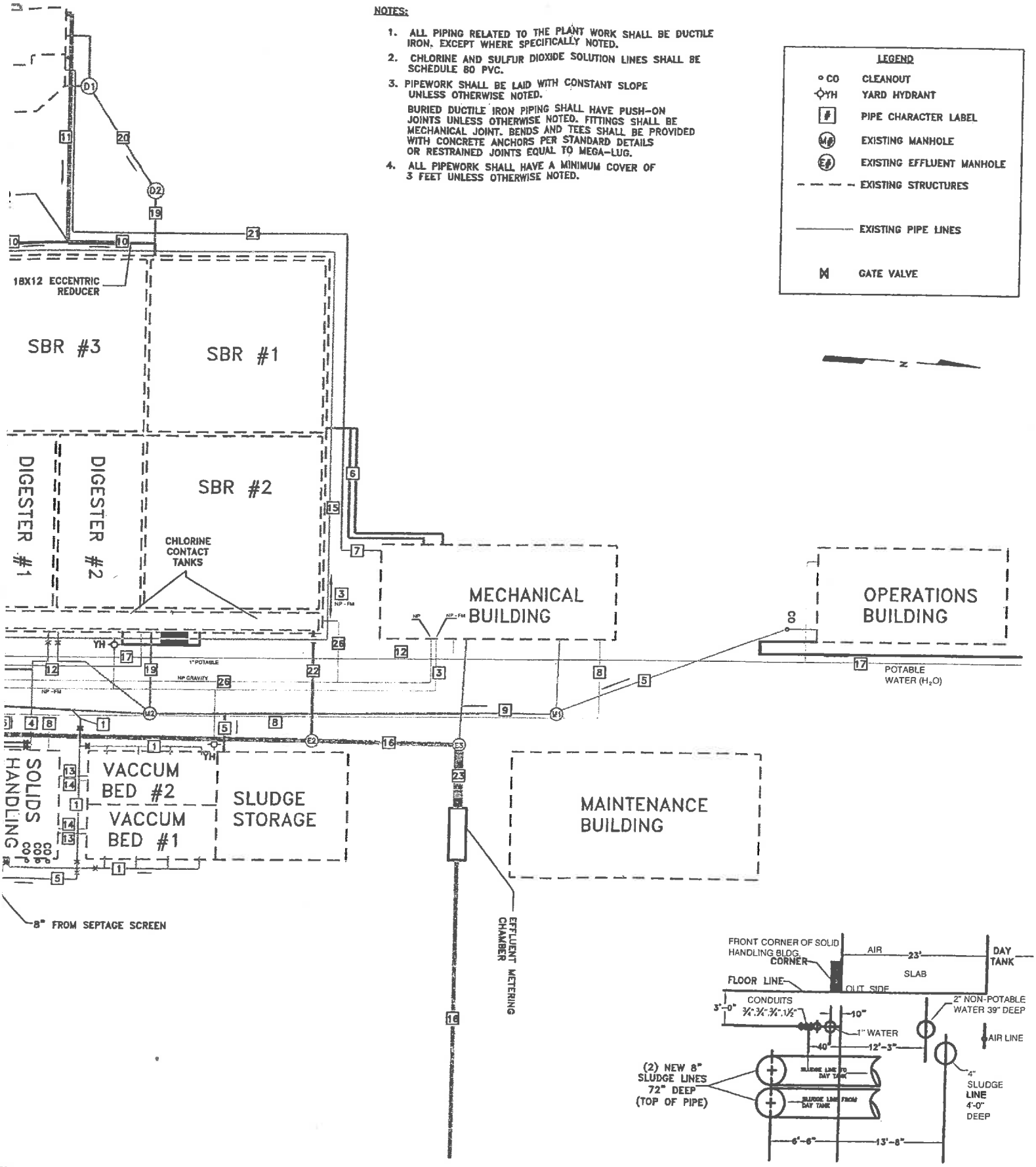
NOTES:

1. ALL PIPING RELATED TO THE PLANT WORK SHALL BE DUCTILE IRON, EXCEPT WHERE SPECIFICALLY NOTED.
2. CHLORINE AND SULFUR DIOXIDE SOLUTION LINES SHALL BE SCHEDULE 80 PVC.
3. PIPEWORK SHALL BE LAID WITH CONSTANT SLOPE UNLESS OTHERWISE NOTED.

   BURIED DUCTILE IRON PIPING SHALL HAVE PUSH-ON JOINTS UNLESS OTHERWISE NOTED. FITTINGS SHALL BE MECHANICAL JOINT. BENDS AND TEES SHALL BE PROVIDED WITH CONCRETE ANCHORS PER STANDARD DETAILS OR RESTRAINED JOINTS EQUAL TO MEGA-LUG.
4. ALL PIPEWORK SHALL HAVE A MINIMUM COVER OF 3 FEET UNLESS OTHERWISE NOTED.

LEGEND

- CO CLEANOUT
- YH YARD HYDRANT
- # PIPE CHARACTER LABEL
- MH EXISTING MANHOLE
- EFF EXISTING EFFLUENT MANHOLE
- EXISTING STRUCTURES
- EXISTING PIPE LINES
- M GATE VALVE



RD of SUPERVISORS
WASTEWATER
ANT UPGRADE
ACT 2
NTY, VIRGINIA

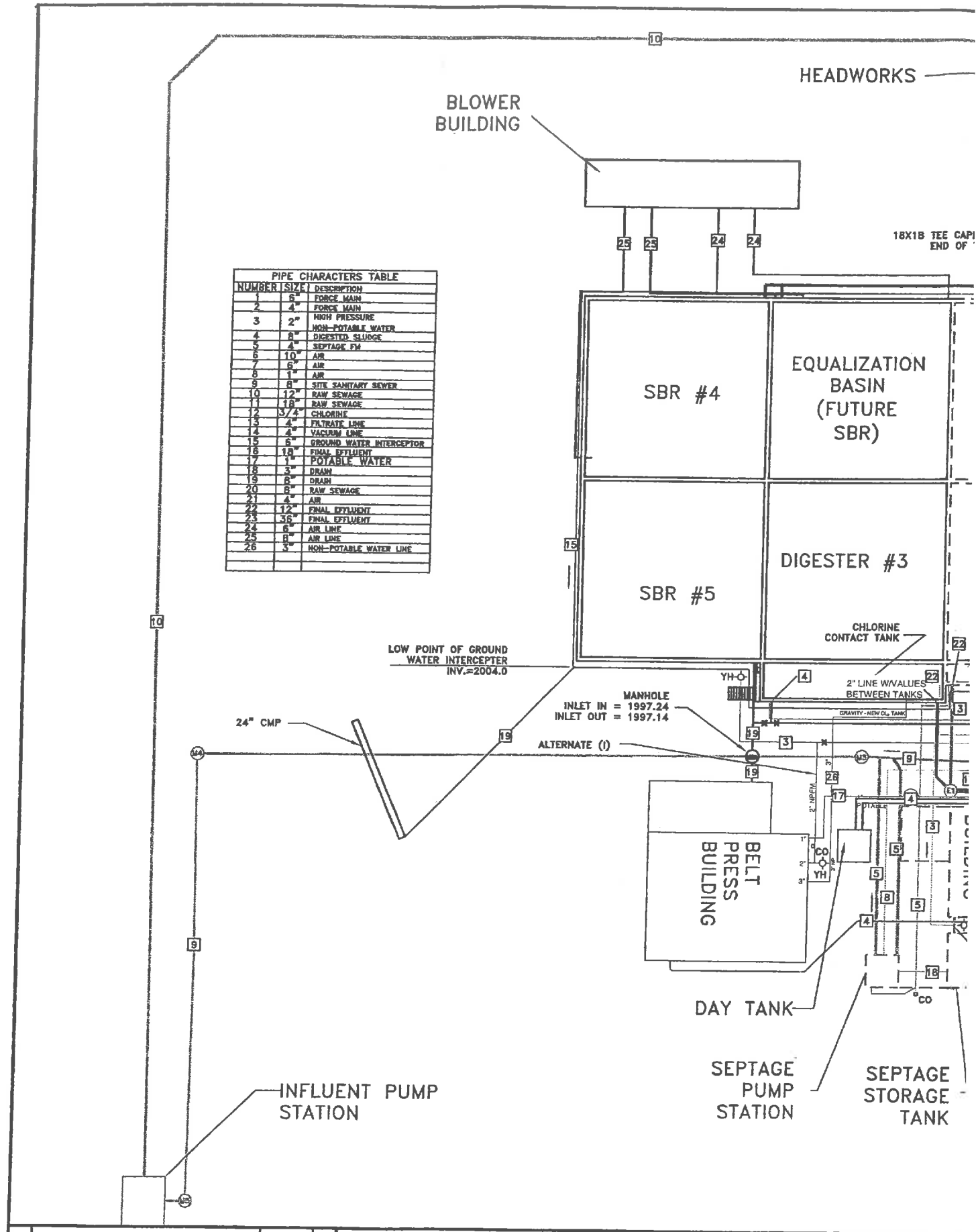
NOTE:

EXISTING INFORMATION PROVIDED BY WYTHE COUNTY BOARD OF SUPERVISORS

COMMONWEALTH OF VIRGINIA
DANIEL R. SHORTS, JR.
No. 036253
PROFESSIONAL ENGINEER
10/16/06

SITE PIPING PLAN

SHEET:	A-4
DATE:	8-11-2008
DRAWN BY:	GEI/CDF
CHECKED BY:	JWT
APPROVED BY:	DRS
ACAD DIR:	FT. WYTHE-0(
ACAD FILE:	SITE PIPIN(
HOR. SCALE:	1"=20'-(



PIPE CHARACTERS TABLE		
NUMBER	SIZE	DESCRIPTION
1	6"	FORCE MAIN
2	4"	FORCE MAIN
3	2"	HIGH PRESSURE NON-POTABLE WATER
4	8"	DIGESTED SLUDGE
5	4"	SEPTAGE FM
6	10"	AIR
7	6"	AIR
8	1"	AIR
9	8"	SITE SANITARY SEWER
10	12"	RAW SEWAGE
11	18"	RAW SEWAGE
12	3/4"	CHLORINE
13	4"	FILTRATE LINE
14	4"	VACUUM LINE
15	6"	GROUND WATER INTERCEPTOR
16	18"	FINAL EFFLUENT
17	1"	POTABLE WATER
18	3"	DRAIN
19	8"	DRAIN
20	8"	RAW SEWAGE
21	4"	AIR
22	12"	FINAL EFFLUENT
23	36"	FINAL EFFLUENT
24	6"	AIR LINE
25	8"	AIR LINE
26	3"	NON-POTABLE WATER LINE

NO.	REVISIONS	DATE	BY

Pentree Incorporated
Consulting Engineers ©
P.O. BOX 1309 PRINCETON, WEST VIRGINIA 24740-1309

WYTHE COUNTY BO
FORT CHISWEL
TREATMENT P
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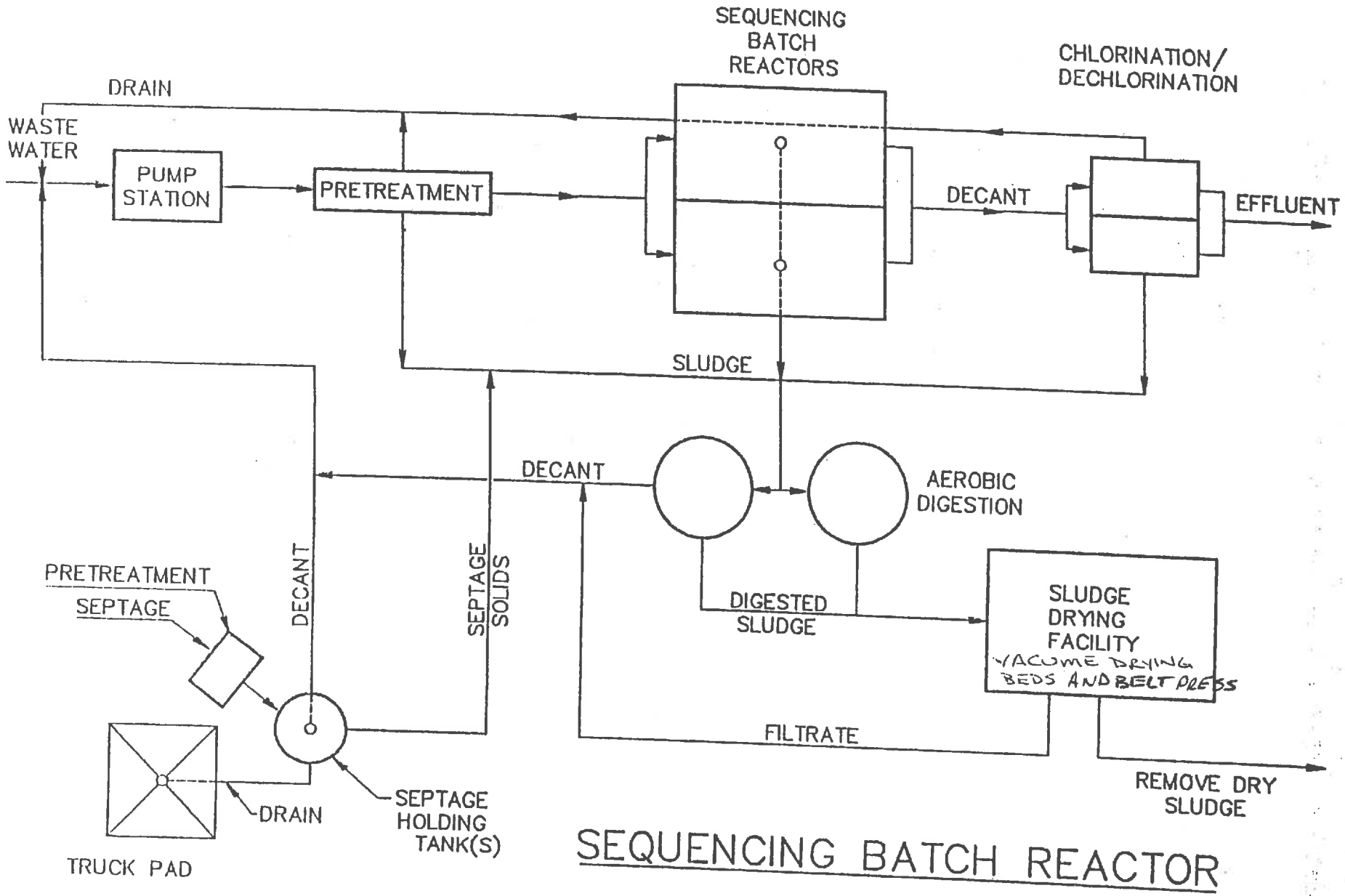
WYTHE CO



SEQUENCING BATCH REACTOR

ANDERSON AND ASSOCIATES, Inc.
Engineers
Surveyors
Planners
Blacksburg, VA
Greensboro, NC

FIGURE 4

DRAWN	SCALE	DATE	DOCUMENT NO.
AJR	N.T.S.	2-12-99	09414-00

ACAD 9414RFA

VPDES Sewage Sludge Permit Application for Permit Reissuance

Instructions

WHO MUST SUBMIT THE APPLICATION - All facilities with a current VPDES Permit that authorizes the discharge of treated sewage wastewater that are applying for reissuance must complete and submit this application.
Part 1 is general information to be provided by all facilities.
Part 2 must be completed by all facilities that generate Class A or Class B biosolids that are land applied.
Part 3 must be completed by all facilities that land apply Class B biosolids.

Part 1 – Sludge Disposal Management (To be completed by all facilities)

Facility Name: Ft Chiswell - Max Meadows WWTP **VPDES Permit No:** VA 0074161

1. Shipment Off Site for Treatment or Blending

Is sewage sludge from your facility sent to another facility that provides treatment or blending? ☐ Yes ☒ No

If you send sewage sludge to more than one facility, attach additional sheets as necessary.

Shipment off site is: ☐ The primary method of sludge disposal ☐ A back up method of sludge disposal

a. Receiving Facility Name _____

b. Receiving Facility VPDES Permit No. _____

c. Include an acceptance letter from the Receiving Facility.

d. Receiving Facility's ultimate disposal method for sewage sludge _____

2. Disposal in a Municipal Solid Waste Landfill

Is sewage sludge from your facility placed in a municipal solid waste landfill? ☒ Yes ☐ No

If sewage sludge is placed on more than one municipal solid waste landfill, attach additional pages as necessary.

Landfilling is: ☒ The primary method of sludge disposal ☐ A back up method of sludge disposal

a. Landfill Name New River Resource Authority

b. Landfill Permit No. DEQ # 548

c. Include an acceptance letter from the landfill. Attached

3. Incineration

Is sewage sludge from your facility fired in a sewage sludge incinerator? ☐ Yes ☒ No

Incineration is: ☐ The primary method of sludge disposal ☐ A back up method of sludge disposal

a. Do you own or operate all sewage sludge incinerators in which sewage sludge from your facility is fired? ☐ Yes ☐ No

If yes, provide the Air Registration No. _____

If no, complete items b - d for each incinerator that you do not own or operate.

b. Facility Name _____

c. Air Registration No. _____

d. Include an acceptance letter from the Incinerator.

4. Class A Biosolids

Do you produce Class A biosolids for land application or distribution and marketing? If yes, complete Part 2. ☐ Yes ☒ No

Are Class A biosolids from your facility land applied in bulk? ☐ Yes ☒ No

Do you sell or give away Class A biosolids in a bag or other container for application to the land? If yes, provide the VDACS certification number? _____ ☐ Yes ☒ No

5. Class B Biosolids

Do you produce Class B biosolids? If yes, complete Part 2. ☒ *Yes* ☐ *No*

Are Class B biosolids from your facility land applied land applied under the authorization of this VPDES Permit? If yes, complete Part 3. ☐ *Yes* ☒ *No*

6. Land Application Under a Separate Permit

Are biosolids from your facility land applied under the authorization of a permit other than your VPDES Permit? ☐ Yes ☒ No

Biosolids are land applied under the authorization of a ☐ VPA permit ☐ Another VPDES Permit ☐ Out of State

Complete items a - c for each VPA permit authorized to land apply biosolids from your facility.

a. Permittee Name b. Permit No.

_____ _____

_____ _____

c. Include copy of any information you provide to the Receiving VPDES or VPA Permittee to comply with the "notice and necessary information" requirement of VAC 25-31-530.F.

VPDES Sewage Sludge Permit Application for Permit Reissuance

Part 2 – Biosolids Characterization (To be completed by all facilities that generate biosolids that are land applied.)

1. Have there been changes to sludge treatment processes or storage facilities since the previous permit issuance/reissuance? ☐ Yes ☐ No

2. Do the biosolids generated under this permit that will be land applied meet one of the Class A pathogen requirements in 9 VAC25-31-710.A.3. through A.8 or Class B pathogen requirements in 9VAC25-31-710.B.1. through B.4.? ☐ Yes ☐ No

   Identify the pathogen reduction option utilized to demonstrate compliance with the pathogen reductions requirements and provide the data that demonstrate compliance with the applicable alternative. _____

3. Do the biosolids generated under this permit that will be land applied meet one of the vector attraction reduction requirements in 9VAC25-31-720.B.1. through 10? ☐ Yes ☐ No

   Identify the vector attraction reduction option utilized to demonstrate compliance with the vector attraction reductions requirements and provide the data that demonstrate compliance with the applicable alternative. _____

4. Do the biosolids to be land applied meet the ceiling/pollutant concentrations in 9VAC25-31-540.B? ☐ Yes ☐ No

5. Has data from the most recent 3 samples for pH (S. U.), Percent Solids (%), Ammonium Nitrogen (mg/kg), Nitrate Nitrogen (mg/kg), Total Kjeldahl Nitrogen (mg/kg), Total Phosphorus (mg/kg), Total Potassium (mg/kg), Alkalinity as $CaCO_3$ (mg/kg), Arsenic (mg/kg), Cadmium (mg/kg), Copper (mg/kg), Lead (mg/kg), Mercury (mg/kg), Nickel (mg/kg), Selenium (mg/kg), Zinc (mg/kg) been submitted to DEQ? The samples shall be no more than 4½ years old and each sampling date shall be at least 1 month apart. ☐ Yes ☐ No

   If no, provide the data with this application.

Part 3 – Land Application of Class B Biosolids (To be completed by all facilities that land apply Class B biosolids.)

1. Provide to DEQ and to each locality in which biosolids are to be land applied, written evidence of financial responsibility. Evidence of financial responsibility shall be provided in accordance with 9VAC25-31-100.P.9.

2. For each site, provide a properly completed landowner agreement for each landowner, using the most current Land Application Agreement - Biosolids Form (VPDES Sewage Sludge Permit Application Form – Attachment to Section C).

3. Are any new land application fields proposed at this reissuance? ☐ Yes ☐ No

   If yes, contact the DEQ Regional Office for additional submittal requirements.

4. For the currently permitted land application fields, are the previously submitted site booklets, maps and acreage accurate. ☐ Yes ☐ No

   If no, contact the DEQ Regional Office for additional submittal requirements.

5. Does the facility's Biosolids Management Plan on file with DEQ include the following minimum information? ☐ Yes ☐ No

   a. An odor control plan that addresses the abatement of odors resulting from the storage and/or land application of biosolids.

   b. A description of the transport vehicles to be used.

   c. Procedures for biosolids offloading at the land application site including spill prevention, cleanup (including vehicle cleaning), field reclamation, and emergency notification and cleanup measures.

   d. A description of the land application equipment including procedures for calibrating equipment to ensure uniform distribution and appropriate loading rates.

   e. Procedures used to ensure that land application activities address notification requirements, signage requirements, slope restrictions, operation limitations during periods of inclement weather, soil pH requirements, buffer zone requirements, and site restrictions.

   f. Any other information necessary to ensure compliance with the requirements of the Biosolids Program of the VPDES Permit Regulation (9VAC25-31-420 through 720).

Certification

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name and Official Title R Cellell Dalton

Signature R Cellell D

Telephone number / Email (276) 223 4500 / rcdalton@wytheco.org

Date signed 6/7/16

(Based on a review of this information, it may be necessary to submit additional information to meet other legal or technical review requirements.)

NEW RIVER RESOURCE AUTHORITY

May 25, 2016

Mr. Don Crisp
Wythe County
340 South Sixth Street
Wytheville, Virginia 24382

Dear Mr. Crisp:

This letter is to confirm that Wythe County is authorized to dispose of sludge materials at New River Resource Authority's facility (Department of Environmental Quality Permit Number 548).

The requirements for the continued acceptance of this waste are that waste profiles and testing be updated as required; and, a charge account in good standing is maintained.

Please do not hesitate to contact me if you have any questions regarding this information.

Sincerely,

Joseph R. Levine, P.E.
Executive Director

RECEIVED
MAY 27 2016
BY:

7100 Cloyd's Mountain Road | PO Box 1246 | Dublin, VA 24084 | T 540 674 1677 F 540 674 1431 | newriverresourceauthority.org